

$$V = \int_a^b A(x) dx$$

↑ Areas of
cross sections

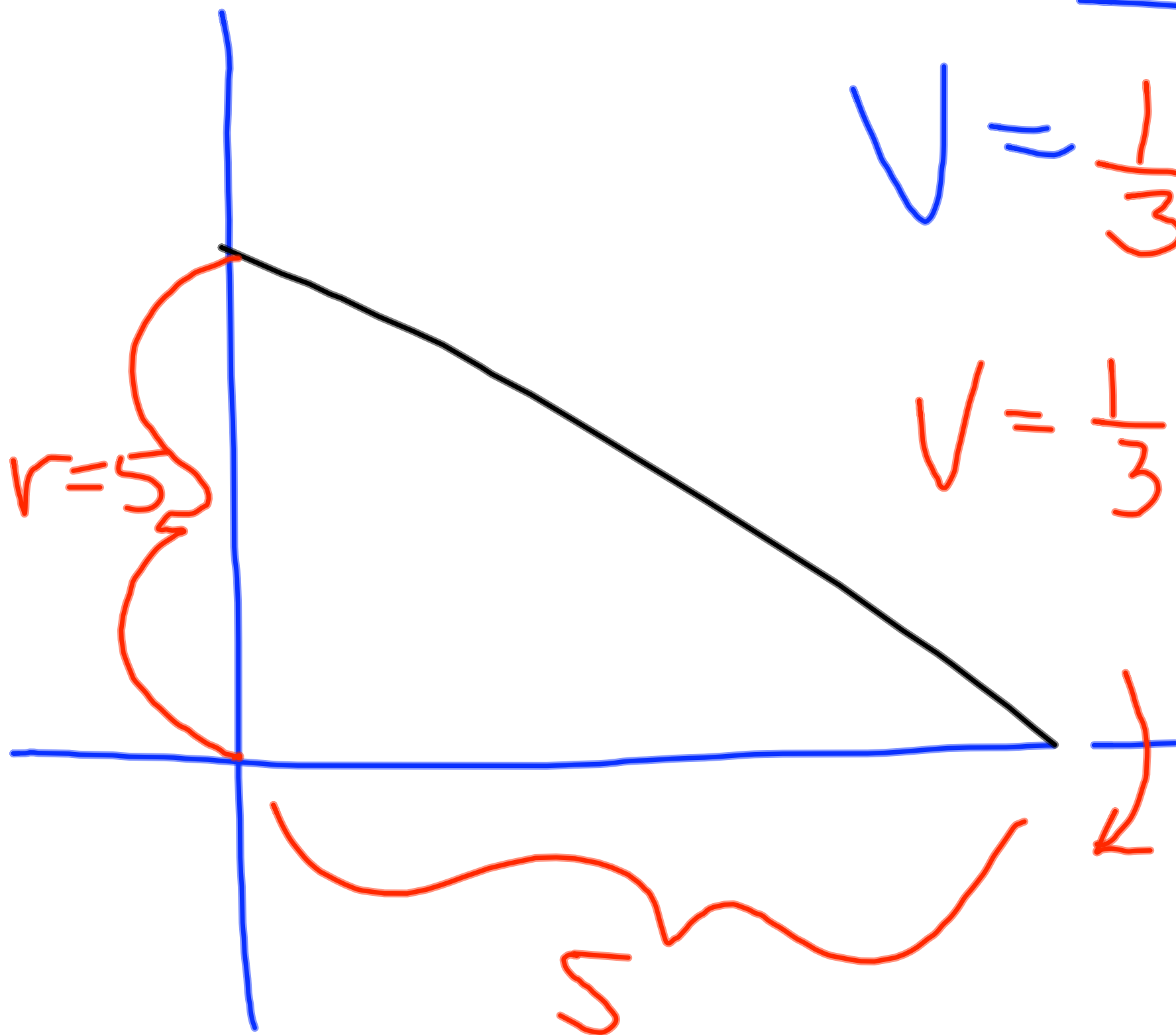
Find the volume of the solid
whose base is bounded
by the circle $x^2 + y^2 = 4$

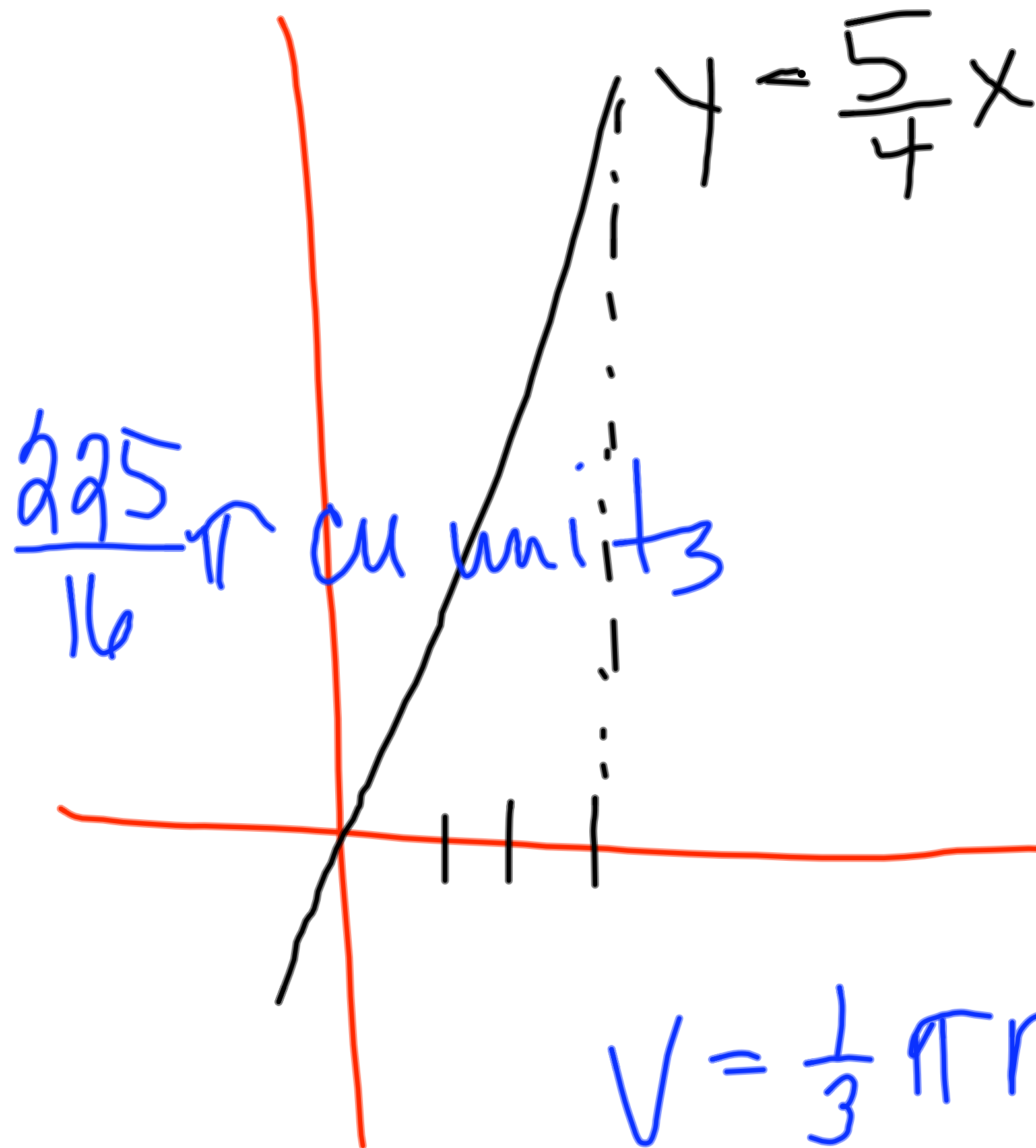
Cone

$$V = \frac{1}{3} \pi r^2 h$$

$$V = \frac{1}{3} \pi 125 =$$
$$\frac{125 \pi}{3} \text{ cu}$$

$\times \times \times = 5$



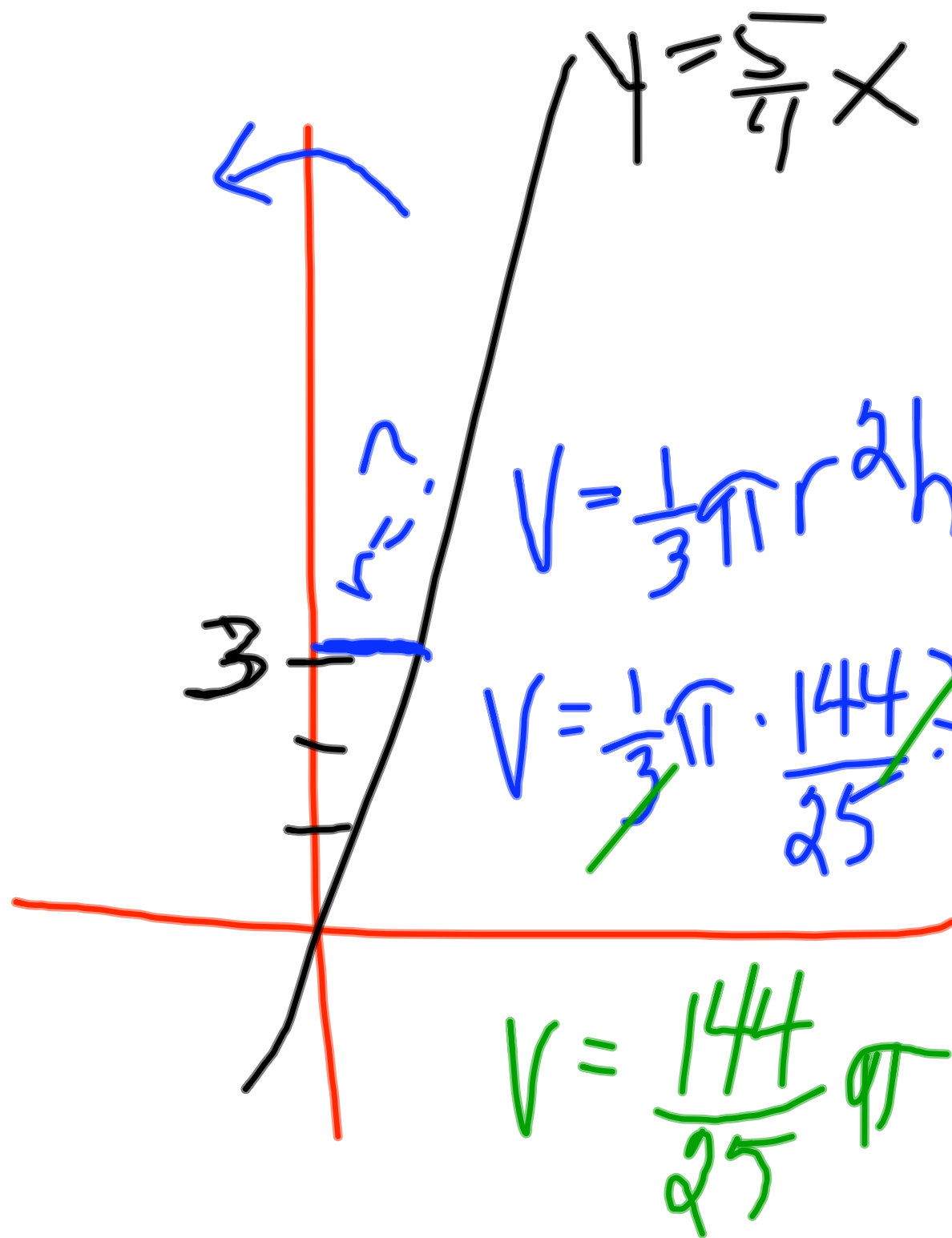


$$r = \frac{5}{4} \cdot 3$$

$$r = \frac{15}{4}$$

$$h = 3$$

$$V = \frac{1}{3} \pi r^2 h = \frac{1}{3} \pi \frac{225}{16}$$



$$3 = \frac{5}{4}x \cdot \frac{4}{5}$$

$$\frac{12}{5} = x = r$$

$g(x) = 1$

